

Spiders of the Genus *Zelotes* (Araneae: Gnaphosidae) from Ryukyu Islands, Southwest Japan

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加村隆英¹⁾：琉球諸島産ケムリグモ属（クモ目：ワシグモ科）の7種

Abstract Seven species of the genus *Zelotes* are reported from Ryukyu Islands (Okinawa Pref.), Japan. Five new species are described under the names of *Zelotes donan* sp. nov., *Z. zephyrus* sp. nov., *Z. gladius* sp. nov., *Z. ryukyuensis* sp. nov. and *Z. flexuosus* sp. nov. The data on distribution of two previously known species, *Z. iriomotensis* Kamura, 1994 and *Z. asiaticus* (Bösenberg et Strand, 1906), are shown.

The gnaphosid genus *Zelotes* is one of the *Zelotes* complex which is clearly characterized by having a preening comb on each ventro-distal end of metatarsi III and IV, and is separated from the other genera of the complex by having an intercalary sclerite in male palp (Platnick & Shadab 1983). Although six species of *Zelotes* were known from Japan up to the present, *Zelotes iriomotensis* Kamura, 1994 described from Iriomotejima Island was the only species recorded from Ryukyu Islands (Okinawa Pref.), Southwest Japan. The gnaphosid spiders occurring in Ryukyu Islands are left studied insufficiently.

The examination of gnaphosid specimens collected from Ryukyu Islands revealed that additional six species of *Zelotes* occur in the area. Of these, five species are new to science and the other one is *Zelotes asiaticus* (Bösenberg et Strand, 1906) which is widely distributed from Japan, Korea and China (Hayashi 1983, Kamura 1984, Platnick & Song 1986, Paik 1986, 1992, Ono 1994), but has not been recorded from Ryukyu Islands. In the present paper, I describe the five new species and show the data on distribution of *Z. iriomotensis* and *Z. asiaticus*.

The type specimens of the new species described in this paper are deposited in the collection of the Department of Zoology, National Science Museum, Tokyo (NSMT).

The abbreviations used in this paper are as follows: ALE, anterior lateral eye; AME, anterior median eye; MOA, median ocular area; p, proventral; PLE, posterior lateral eye; PME, posterior median eye; r, retroventral. Eye size means the length of long axis of an eye, but the measurement of posterior median eye was made at the horizontal level.

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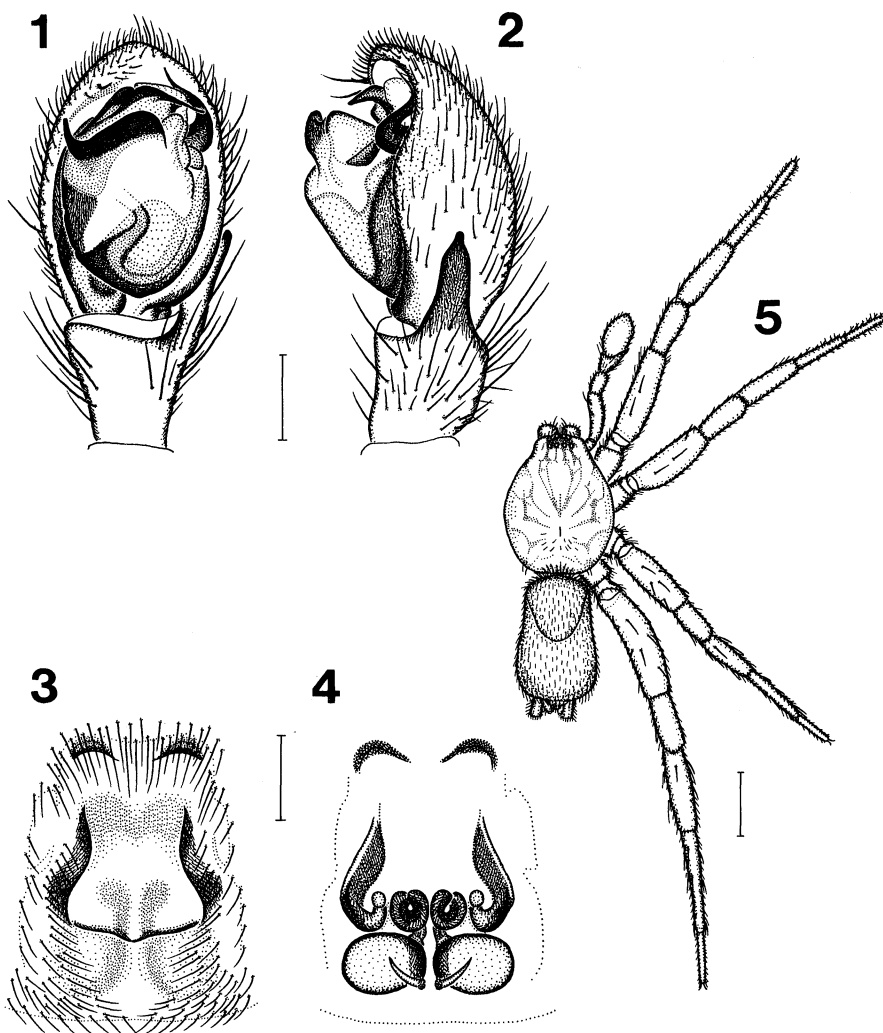
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Zelotes donan sp. nov.

(Figs. 1-5, 26)

Type series. Holotype: ♂, near Sanninudai, Yonagunijima Island, Okinawa Pref., Japan, 45 m alt., 17. III. 1997 (matured on 30. VII. 1997), Takahide & Takae Kamura leg. (NSMT-Ar 4307). Paratype: ♀, 17. III. 1997 (matured on 15. V. 1997), same locality and collectors as for the holotype (NSMT-Ar 4308).

Other specimens examined. 1 ♀, Agarisaki, Yonagunijima Island, 60 m alt., 1. IX.



Figs. 1-5. *Zelotes donan* sp. nov. — 1, Left male palp, ventral view; 2, same, retrolateral view; 3, epigynum, ventral view; 4, female genitalia, dorsal view; 5, male, dorsal view. (1-2, 5: holotype, 3-4: paratype; scales: 1-4, 0.2 mm; 5, 1.0 mm.)

Table 1. Measurements of legs of *Zelotes donan* sp. nov. (♂/♀; in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.52/1.83	0.94/1.14	1.10/1.28	0.99/1.17	0.74/0.94	5.29/6.36
II	1.36/1.65	0.84/1.02	0.96/1.12	0.90/1.11	0.69/0.88	4.75/5.78
III	1.24/1.50	0.70/0.84	0.82/0.96	1.04/1.28	0.62/0.78	4.42/5.36
IV	1.69/2.04	0.96/1.14	1.24/1.46	1.60/1.96	0.75/0.96	6.24/7.56

1995, H. Tanaka leg. 1 ♂, Irisaki, Yonagunijima Island, 50 m alt., 18. III. 1997 (matured on 2. V. 1997), T. & T. Kamura leg.

Description. Measurements (based on the male holotype and the female paratype; in mm). Body length ♂ 4.25, ♀ 5.43. Carapace length ♂ 2.20, ♀ 2.65; width ♂ 1.73, ♀ 2.00. Abdomen length ♂ 2.05, ♀ 2.78; width ♂ 1.25, ♀ 1.70. Eye sizes: AME ♂ 0.07, ♀ 0.08; ALE ♂ 0.10, ♀ 0.11; PME ♂ 0.08, ♀ 0.08; PLE ♂ 0.09, ♀ 0.09. Distances between eyes: AME-AME ♂ 0.05, ♀ 0.07; AME-ALE ♂ 0.01, ♀ 0.01; PME-PME ♂ 0.05, ♀ 0.06; PME-PLP ♂ 0.04, ♀ 0.06; ALE-PLP ♂ 0.07, ♀ 0.08. MOA anterior width ♂ 0.18, ♀ 0.21; posterior width ♂ 0.21, ♀ 0.22; length ♂ 0.24, ♀ 0.26. Clypeus height ♂ 0.11, ♀ 0.09. Length of legs as shown in Table 1.

Variation (in mm). 1 ♂ other than the holotype: body length 4.40; carapace length 2.10, width 1.65; abdomen length 2.30, width 1.35. 1 ♀ other than the paratype: body length 5.70; carapace length 2.25, width 1.63; abdomen length 3.45, width 2.05.

Ventral spines on legs I and II. Male and female: tibiae: I 0-0-0, II 0-1r-0; metatarsi: I and II 2-0-0.

Male palp (Figs. 1-2): terminal apophysis with a pointed projection on prolateral side. Epigynum as shown in Fig. 3. Female genitalia with a pair of median ducts coiled (Fig. 4).

Color. Male and female: body and appendages blackish brown, but legs with metatarsi and tarsi paler.

Distribution. Yonagunijima Island, Southwest Japan.

Remarks. This species is similar to *Zelotes asiaticus* (Bösenberg et Strand, 1906) in having the coiled median ducts in female genitalia, but is distinguished from the latter by the following points. Male: palpal terminal apophysis of this species has a pointed projection on prolateral side, while that of *Z. asiaticus* has no projection (see Kamura 1984, fig. 12). Female: epigynum of this species is longer than that of *Z. asiaticus* (see Kamura 1984, fig. 9).

Etymology. The specific epithet is a noun in apposition, and is taken from Donan, which is another name of Yonagunijima Island.

Zelotes zephyrus sp. nov.

(Figs. 6, 8-11, 26)

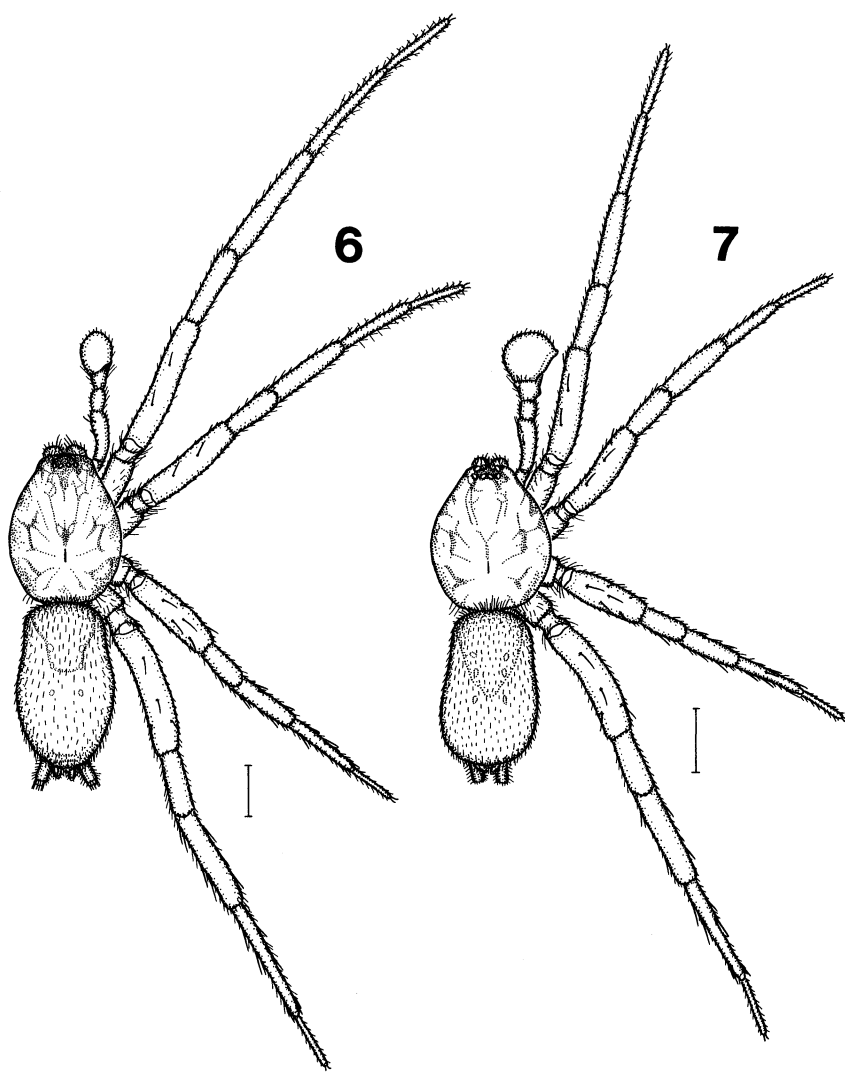
Type series. Holotype: ♂, Irisaki, Yonagunijima Island, Okinawa Pref., Japan, 50 m alt., 18. III. 1997, T. & T. Kamura leg. (NSMT-Ar 4309). Paratype: ♀, NE of Mt. Kubura-dake, 120 m alt., 18. III. 1997, same island and collectors as for the holotype (NSMT-Ar 4310).

Other specimen examined. 1 ♂, SE of Mt. Urabu-dake, 100-150 m alt., 1. I. 1996 (matured on 2. IV. 1996), same island and collectors as for the holotype.

Description. Measurements (based on the male holotype and the female paratype;

Table 2. Measurements of legs of *Zelotes zephyrus* sp. nov. (♂/♀; in mm).

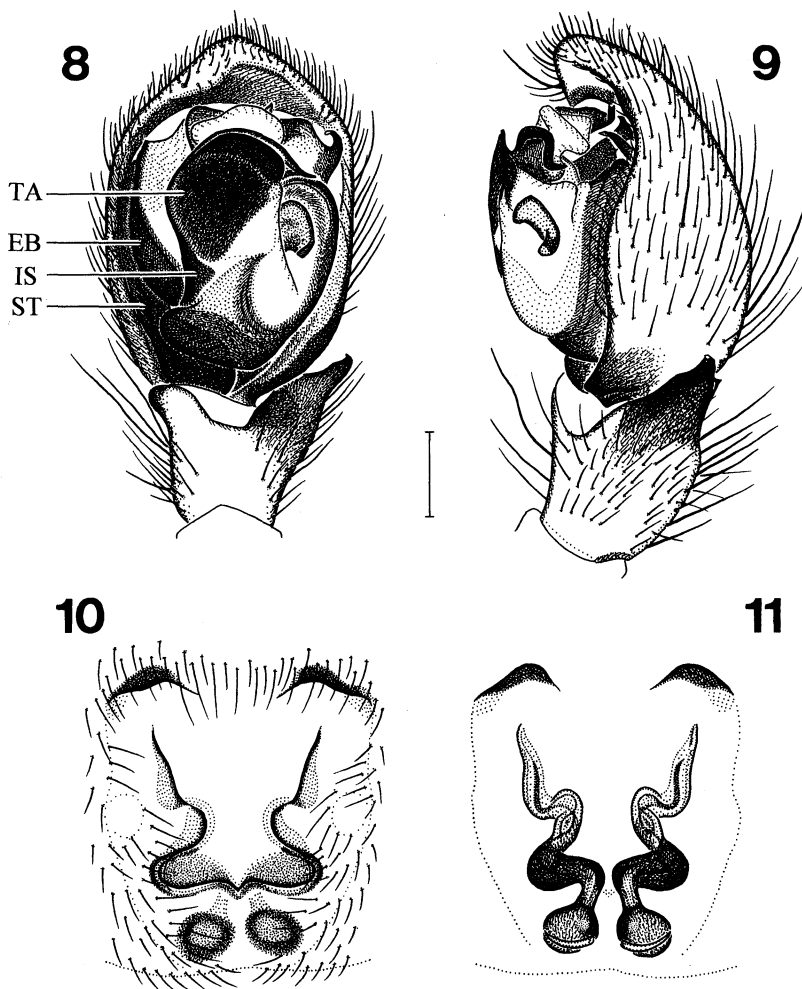
Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	2.68/2.08	1.62/1.28	2.35/1.59	2.20/1.44	1.60/1.12	10.45/7.51
II	2.05/1.80	1.24/1.08	1.56/1.29	1.54/1.26	1.14/0.96	7.53/6.39
III	1.81/1.56	0.96/0.84	1.22/1.06	1.52/1.30	0.86/0.80	6.37/5.56
IV	2.50/2.23	1.34/1.16	2.00/1.73	2.41/2.08	1.06/1.00	9.31/8.20



Figs. 6-7. 6, *Zelotes zephyrus* sp. nov., male, dorsal view (holotype); 7, *Zelotes gladius* sp. nov., male, dorsal view (holotype). (Scales: 1.0 mm.)

in mm). Body length ♂ 6.05, ♀ 5.48. Carapace length ♂ 2.85, ♀ 2.60; width ♂ 2.20, ♀ 1.93. Abdomen length ♂ 3.20, ♀ 2.88; width ♂ 1.83, ♀ 1.58. Eye sizes: AME ♂ 0.09, ♀ 0.08; ALE ♂ 0.12, ♀ 0.12; PME ♂ 0.09, ♀ 0.08; PLE ♂ 0.12, ♀ 0.10. Distances between eyes: AME-AME ♂ 0.06, ♀ 0.06; AME-ALE ♂ 0.01, ♀ 0.01; PME-PME ♂ 0.06, ♀ 0.06; PME-PLP ♂ 0.04, ♀ 0.05; ALE-PLP ♂ 0.05, ♀ 0.06. MOA anterior width ♂ 0.22, ♀ 0.21; posterior width ♂ 0.24, ♀ 0.22; length ♂ 0.28, ♀ 0.26. Clypeus height ♂ 0.10, ♀ 0.08. Length of legs as shown in Table 2.

Variation (in mm). 1 ♂ other than the holotype: body length 5.25; carapace length 2.60, width 2.03; abdomen length 2.65, width 1.45.



Figs. 8-11. *Zelotes zephyrus* sp. nov. — 8, Left male palp, ventral view (EB: embolar base, IS: intercalary sclerite, ST: subtegulum, TA: terminal apophysis); 9, same, retrolateral view; 10, epigynum, ventral view; 11, female genitalia, dorsal view. (8-9: holotype, 10-11: paratype; scale: 0.2 mm.)

Ventral spines on legs I and II. Male: tibiae: I 0-0-0, II 0-0-0 or 1r-1r-0; metatarsi: I 2-1p-0 or 2-2-0, II 2-2-0. Female: tibiae: I and II 0-0-0; metatarsi: I 2-1p-0, II 2-1p-0 or 2-2-0.

Male palp (Figs. 8-9): terminal apophysis rounded; embolar base expanded proventrally, inserted between subtegulum and intercalary sclerite. Epigynum with a median plate widened in posterior part (Fig. 10). Female genitalia with epigynal ducts relatively narrow (Fig. 11).

Color. Male: cephalothorax and appendages dark reddish brown; abdomen blackish brown, but ventral surface paler. Female: similar to male, but slightly paler.

Distribution. Yonagunijima Island, Southwest Japan.

Remarks. In male of this species, palpal embolar base is expanded proventrally and pushing aside intercalary sclerite, and the leg I is the longest instead of leg IV (Table 2). Judging from these characters, this species seems to be related to *Zelotes iriomotensis* Kamura, 1994, but is easily separated from the latter by the following points. Male: palpal terminal apophysis of this species lacks a projection, while that of *Z. iriomotensis* has a pointed projection on prolateral side (see Kamura 1994, fig. 1). Female: epigynum of this species has a median plate posteriorly wide, while in *Z. iriomotensis* the median plate is posteriorly narrow (see Kamura 1994, fig. 3).

Etymology. The specific epithet meaning the west wind is a noun in apposition.

***Zelotes gladius* sp. nov.**

(Figs. 7, 12-16, 26)

Type series. Holotype: ♂, southern part of Ikemajima Island, Miyako Islands, Okinawa Pref., Japan, 10 m alt., 23. VII. 1997, T. & T. Kamura leg. (NSMT-Ar 4311). Paratypes: 1 ♂ (NSMT-Ar 4312) and 2 ♀ (NSMT-Ar 4313 and 4314), same data as for the holotype.

Other specimens examined. 4 ♂ and 1 ♀, same data as for the holotype; 1 ♂, Yamakawa, Hirara-shi, Miyakojima Island, 26 m alt., 23. III. 1995; S. Kaneno & Y. Hatamori leg.; 1 ♀, 24. III. 1995, same locality and collectors.

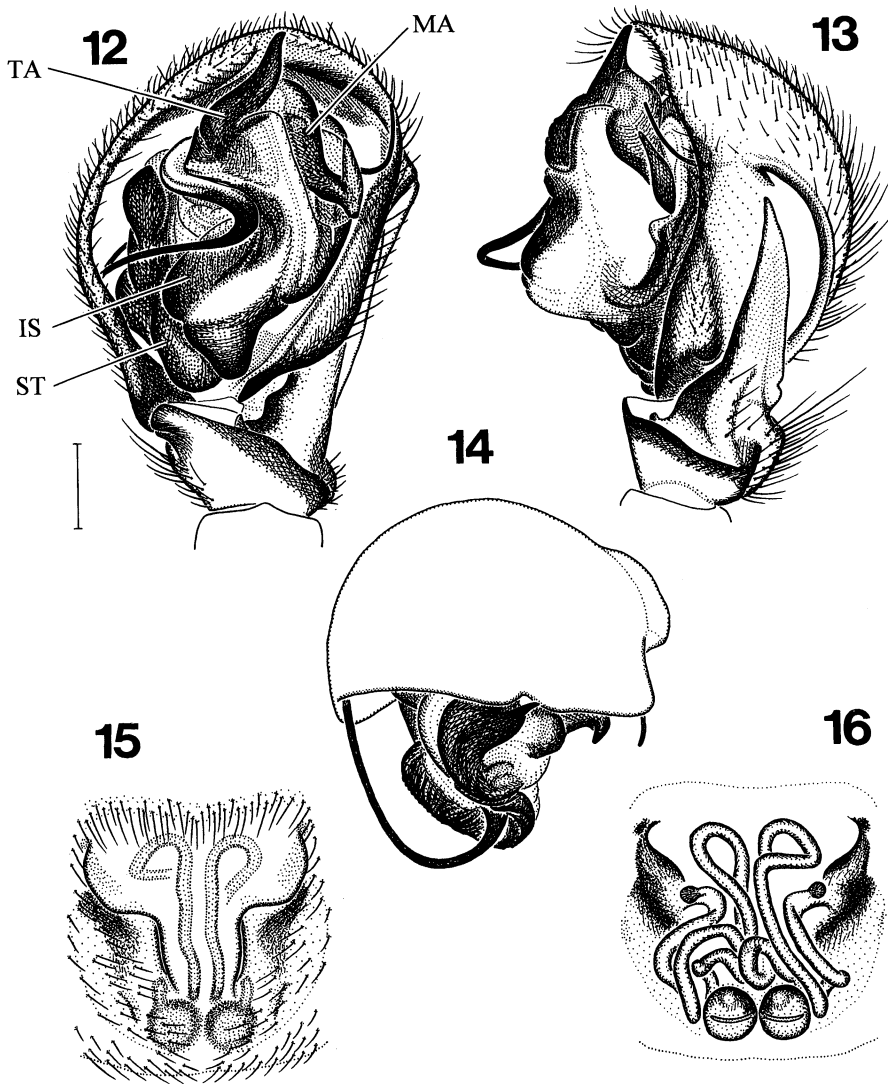
Description. Measurements [based on the male holotype and one of the female paratypes (NSMT-Ar 4313), variations are given in parentheses; in mm]. Body length ♂ 4.73 (4.55-4.88), ♀ 4.90 (4.75-6.55). Carapace length ♂ 2.28 (2.05-2.28), ♀ 2.10 (1.98-2.45); width ♂ 1.85 (1.65-1.85), ♀ 1.60 (1.50-1.90). Abdomen length ♂ 2.45 (2.45-2.75), ♀ 2.80 (2.55-4.10); width ♂ 1.50 (1.40-1.65), ♀ 1.65 (1.60-2.65). Eye sizes: AME ♂ 0.08, ♀ 0.08; ALE ♂ 0.12, ♀ 0.12; PME ♂ 0.09, ♀ 0.08; PLE ♂ 0.10, ♀ 0.11. Distances between eyes: AME-AME ♂ 0.06, ♀ 0.04; AME-ALE ♂ 0.01, ♀ 0.01; PME-PME ♂ 0.03, ♀ 0.04; PME-PLE ♂ 0.04, ♀ 0.03; ALE-PLE ♂ 0.04, ♀ 0.03. MOA anterior width ♂ 0.20, ♀ 0.18; posterior width ♂ 0.21, ♀ 0.20; length ♂ 0.26, ♀ 0.23. Clypeus height ♂ 0.08, ♀ 0.08. Length of legs as shown in Table 3.

Table 3. Measurements of legs of *Zelotes gladius* sp. nov. (♂/♀; in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.78/1.58	1.12/0.97	1.44/1.19	1.35/1.06	1.06/0.82	6.75/5.62
II	1.54/1.36	0.92/0.83	1.13/0.96	1.10/0.90	0.88/0.70	5.57/4.75
III	1.36/1.18	0.76/0.65	0.92/0.79	1.10/0.94	0.70/0.60	4.84/4.16
IV	1.94/1.72	1.08/0.94	1.50/1.33	1.78/1.52	0.88/0.76	7.18/6.27

Ventral spines on legs I and II. Male: tibiae: I 0-0-0, 0-1r-0 or 1r-1r-0, II 0-1r-0 or 1r-1r-0; metatarsi: I and II 2-1p-0 or 2-2-0. Female: tibiae: I and II 0-0-0; metatarsi: I 2-1p-0 or 2-2-0, II 1r-0-0, 1r-1p-0, 2-1p-0 or 2-2-0.

Male palp (Figs. 12-14): terminal apophysis narrow, pointed apically; median apophysis rather large with a hook on retrolateral side; embolar base pushing aside



Figs. 12-16. *Zelotes gladius* sp. nov. — 12, Left male palp, ventral view (IS: intercalary sclerite, MA: median apophysis, ST: subtegulum, TA: terminal apophysis); 13, same, retrolateral view; 14, same, apical view; 15, epigynum, ventral view; 16, female genitalia, dorsal view. [12-14: holotype, 15-16: paratype (NSMT -Ar 4313); scale: 0.2 mm.]

intercalary sclerite; embolus rising ventrally and surrounding bulb dorsally; tip of embolus appears retrolaterally; retrolateral tibial apophysis long, pointed; cymbium with a curved ridge on retrolateral side. Epigynum with a median plate anteriorly wide (Fig. 15). Female genitalia with epigynal ducts narrow, complexly winding (Fig. 16).

Color. Male: cephalothorax and appendages dark reddish brown, but mouth parts and sternum paler; abdomen with dorsal and lateral surfaces blackish brown, and ventral surface yellowish brown. Female: similar to male, but slightly paler.

Distribution. Ikemajima Island and Miyakojima Island, Southwest Japan.

Remarks. Because the male palpal structure of this species is rather different from those of the previously known species of *Zelotes*, this species seems not to be a member of this genus at first sight. However, in this species the male palp distinctly has an intercalary sclerite which is considered to be a synapomorphic character for *Zelotes*. Therefore I assigned this species to *Zelotes*.

This species resembles *Zelotes ryukyuensis* sp. nov. in the features of male palp and female genitalia, but is separated from the latter by the long retrolateral tibial apophysis in male palp and by the median plate widened anteriorly in epigynum.

Etymology. The specific epithet meaning a sword is a noun in apposition, and is due to the shape of retrolateral tibial apophysis in male palp.

***Zelotes ryukyuensis* sp. nov.**

(Figs. 17–23, 26)

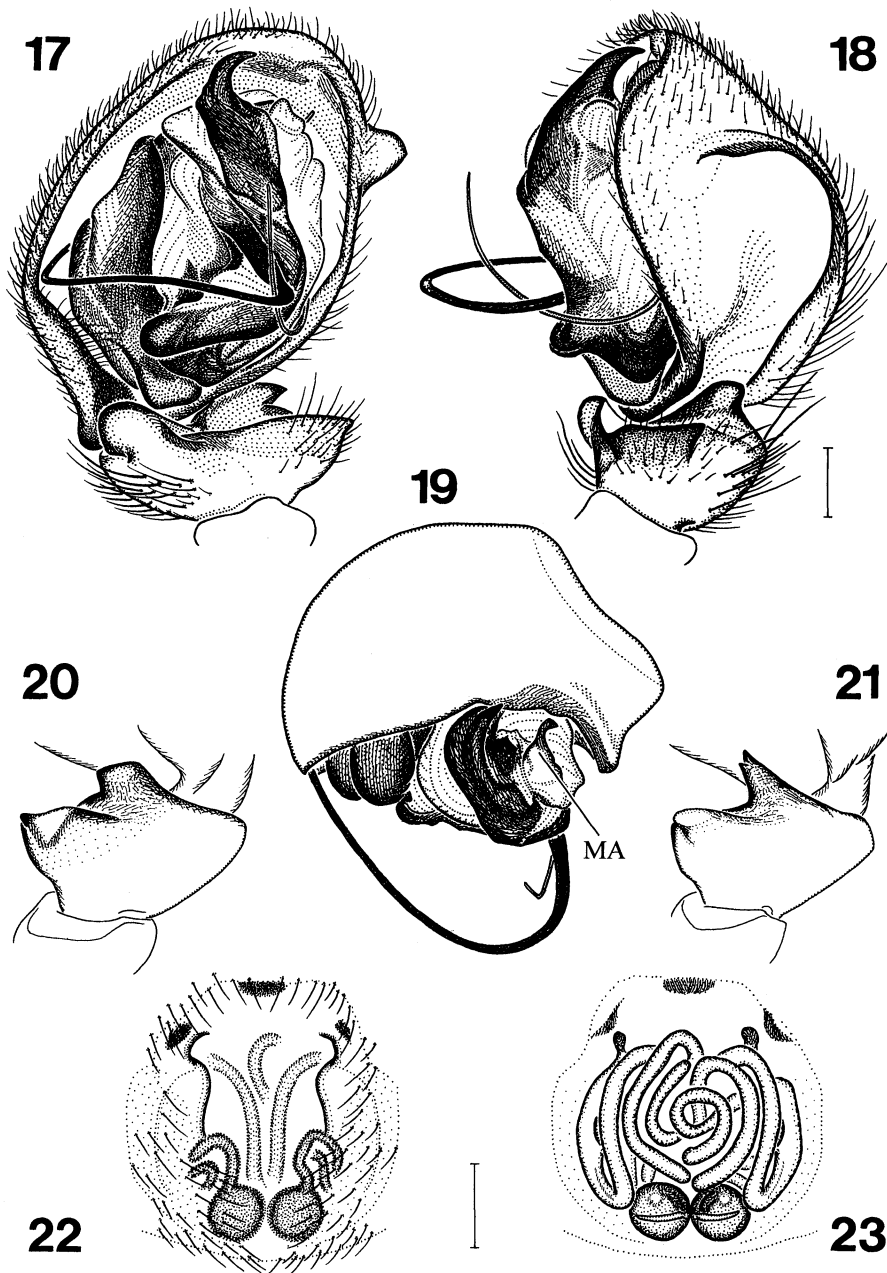
Type series. Holotype: ♀, Mt. Otowa-dake, Nakijin-son, Okinawajima Island, Okinawa Pref., Japan, 270 m alt., 26. VII. 1997, T. & T. Kamura leg. (NSMT–Ar 4315). Paratypes: 1 ♂, Yona, Kunigami-son, Okinawajima Island, 20 m alt., 1.IV.1987, M. Yoshida & T. Sasaki leg. (NSMT–Ar 4316); 1 ♂ (NSMT–Ar 4317) and 1 ♀ (NSMT–Ar 4318), same data as for the holotype (1 ♂ matured on 31. VII. 1997).

Other specimens examined. Okinawajima Island: 1 ♂, Yona, Kunigami-son, 27. VII. 1997, T. & T. Kamura leg.; 1 ♂ and 2 ♀, same data as for the holotype (1 ♂ and 1 ♀ matured on 2. VIII. 1997 and 21. VIII. 1997 respectively); 1 ♀, Shoshi, Nakijin-son, 3. IV. 1997, T. Sasaki leg.; 1 ♂ and 2 ♀, Izumi, Motobu-cho, 3. IV. 1997, T. Sasaki leg.; 1 ♂, Shuri, Naha-shi, 26. III. 1995 (matured on 26. V. 1995), Y. Hatamori leg. Iheyajima Island: 1 ♂, Mt. Asa-dake, 15. III. 1998, T. Toyoguchi leg.

Description. Measurements [based on the female holotype and one of the male paratypes (NSMT–Ar 4316), variations are given in parentheses; in mm]. Body length ♂ 5.78 (4.60–5.78), ♀ 4.75 (4.43–6.45). Carapace length ♂ 2.48 (2.10–2.50), ♀ 2.15 (2.03–2.70); width ♂ 1.98 (1.68–2.05), ♀ 1.65 (1.45–2.05). Abdomen length ♂ 3.30 (2.50–3.30), ♀ 2.60 (2.40–3.90); width ♂ 1.90 (1.45–1.90), ♀ 1.45 (1.40–2.30). Eye sizes: AME ♂ 0.08, ♀ 0.08; ALE ♂ 0.12, ♀ 0.12; PME ♂ 0.08, ♀ 0.08; PLE ♂ 0.11, ♀ 0.10. Distances between eyes: AME–AME ♂ 0.05, ♀ 0.04; AME–ALE ♂ 0.01, ♀ 0.01; PME

Table 4. Measurements of legs of *Zelotes ryukyuensis* sp. nov. (♂/♀; in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	2.00/1.62	1.22/0.98	1.60/1.22	1.52/1.06	1.22/0.84	7.56/5.72
II	1.66/1.36	1.02/0.80	1.21/0.96	1.20/0.92	0.98/0.72	6.07/4.76
III	1.48/1.18	0.80/0.66	0.99/0.78	1.20/0.90	0.76/0.59	5.23/4.11
IV	2.13/1.72	1.16/0.92	1.64/1.30	1.94/1.48	0.93/0.75	7.80/6.17



Figs. 17-23. *Zelotes ryukyuensis* sp. nov. — 17, Left male palp, ventral view; 18, same, retrolateral view; 19, same, apical view (MA: median apophysis); 20-21, tibia of male palp, retrolateral view; 22, epigynum, ventral view; 23, female genitalia, dorsal view. [17-20: paratype (NSMT-Ar 4316), 21: paratype (NSMT-Ar 4317), 22-23: holotype; scales: 0.2 mm.]

-PME ♂ 0.05, ♀ 0.05; PME-PLE ♂ 0.04, ♀ 0.04; ALE-PLE ♂ 0.04, ♀ 0.04. MOA anterior width ♂ 0.20, ♀ 0.18; posterior width ♂ 0.21, ♀ 0.21; length ♂ 0.26, ♀ 0.24. Clypeus height ♂ 0.12, ♀ 0.08. Length of legs as shown in Table 4.

Ventral spines on legs I and II. Male: tibiae: I 0-0-0 or 0-1r-0, II 0-0-0, 0-1r-0 or 1r-1r-0; metatarsi: I 2-1p-0 or 2-2-0, II 2-2-0. Female: tibiae: I 0-0-0, II 0-0-0 or 0-1r-0; metatarsi: I 2-1p-0, 2-1r-0 or 2-2-0, II 2-0-0, 2-1p-0, 2-1r-0 or 2-2-0.

Male palp (Figs. 17-21): terminal apophysis narrow, pointed apically; median apophysis small, situated in apical part of bulb; intercalary sclerite pushed by embolar base extremely, retrolaterally; embolus long, surrounding bulb; tip of embolus appears ventrally; retrolateral tibial apophysis rather short, the shape varies with the individual; cymbium with a curved ridge on retrolateral side. Epigynum with a pair of furrows longitudinal, sinuous (Fig. 22). Female genitalia with epigynal ducts long, complexly winding (Fig. 23).

Color. Male and female: cephalothorax and appendages reddish brown, but mouth parts and sternum paler; abdomen with dorsal and lateral surfaces dark brown, and ventral surface yellowish brown.

Distribution. Okinawajima Island and Iheyajima Island, Southwest Japan.

Remarks. The features of male palp and female genitalia of this species are similar to those of *Zelotes gladius* sp. nov. In both the species, male palp has terminal apophysis pointed apically, embolar base pushing aside intercalary sclerite, embolus very long, and cymbium with a curved ridge on retrolateral side, and female genitalia has epigynal ducts long and winding. These similarities indicate that these two species are related to each other, but this new species is easily distinguished from *Z. gladius* by the short retrolateral tibial apophysis in male palp and by the epigynum without a median plate anteriorly widened.

Etymology. The specific name is after Ryukyu Islands.

***Zelotes flexuosus* sp. nov.**

(Figs. 24-26)

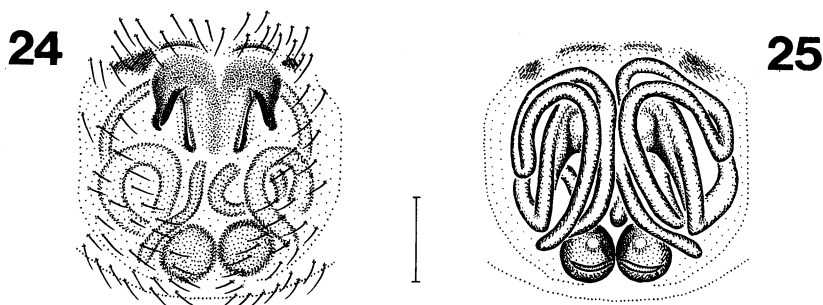
Holotype: 1 ♀, Yona, Kunigami-son, Okinawajima Island, Okinawa Pref., Japan, 20 m alt., T. & T. Kamura leg. (NSMT-Ar 4319).

Other specimens examined. 1 ♀, same data as for the holotype; 1 ♀, 22. V. 1997, same locality as for the holotype, T. Sasaki & T. Kuwae leg.

Description. Measurements (based on the female holotype, variations are given in parentheses; in mm). Body length 5.63 (4.50-6.36). Carapace length 2.13 (2.05-2.78), width 1.60 (1.55-2.10). Abdomen length 3.50 (2.45-3.58), width 1.88 (1.33-2.15). Eye sizes: AME 0.08, ALE 0.11, PME 0.07, PLE 0.10. Distances between eyes: AME-AME 0.04, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.04, ALE-PLE 0.04. MOA anterior width 0.18, posterior width 0.18, length 0.23. Clypeus height 0.08. Length of

Table 5. Measurements of legs of *Zelotes flexuosus* sp. nov. (♀; in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.64	1.02	1.26	1.14	0.86	5.92
II	1.42	0.86	1.00	0.96	0.76	5.00
III	1.22	0.66	0.82	0.98	0.64	4.32
IV	1.78	0.94	1.38	1.58	0.80	6.48



Figs. 24-25. *Zelotes flexuosus* sp. nov. — 24, Epigynum, ventral view; 25, female genitalia, dorsal view. (Holotype; scale: 0.2 mm.)

legs as shown in Table 5.

Ventral spines on legs I and II. Female: tibiae: I and II 0-0-0 or 0-1r-0; metatarsi: I 2-1p-0 or 2-2-0, II 2-2-0.

Epigynum with a pair of longitudinal short slits, which are copulatory openings, and a pair of short sclerotized ridges in anterior part (Fig. 24). Female genitalia with epigynal ducts long, complexly winding (Fig. 25)

Color. Female: cephalothorax and appendages reddish brown, but mouth parts and sternum paler; abdomen with dorsal and lateral surfaces dark brown, and ventral surface yellowish brown.

Male. Unknown.

Distribution. Okinawajima Island, Southwest Japan.

Remarks. The complexly winding epigynal ducts of this species indicate that it is related to *Zelotes gladius* sp. nov. and *Zelotes ryukyuensis* sp. nov., but this species is distinguished from them by the short slits in epigynum.

Etymology. The specific epithet is from Latin *flexuosus* (full of winding and turning), referring to the condition of epigynal ducts in female genitalia.

Zelotes iriomotensis Kamura, 1994

(Figs. 26)

Zelotes iriomotensis Kamura, 1994, p. 159, figs. 1-4; Tanikawa & Sasaki, 1999, p. 88.

Although this species was known only from Iriomotejima Island, it was confirmed that this species occurs also from Ishigakijima Island and Haterumajima Island.

Specimens examined (collected from other than Iriomotejima Island; all the specimens were collected by T. & T. Kamura). Ishigakijima Island: 3 ♂ and 1 ♀, Takeda Botanical Garden, Tonoshiro, 3. XI. 1996 (matured on 11. I. 1997, 23. I. 1997, 4. II. 1997 and 1. II. 1997 respectively). Haterumajima Island: 4 ♀, central part of the island (Nagata-Utaki), 19. III. 1997; 1 ♂ and 2 ♀, Fuka, 20. III. 1997; 3 ♀, northern part of the island (Buribuchi-Kouen), 20. III. 1997

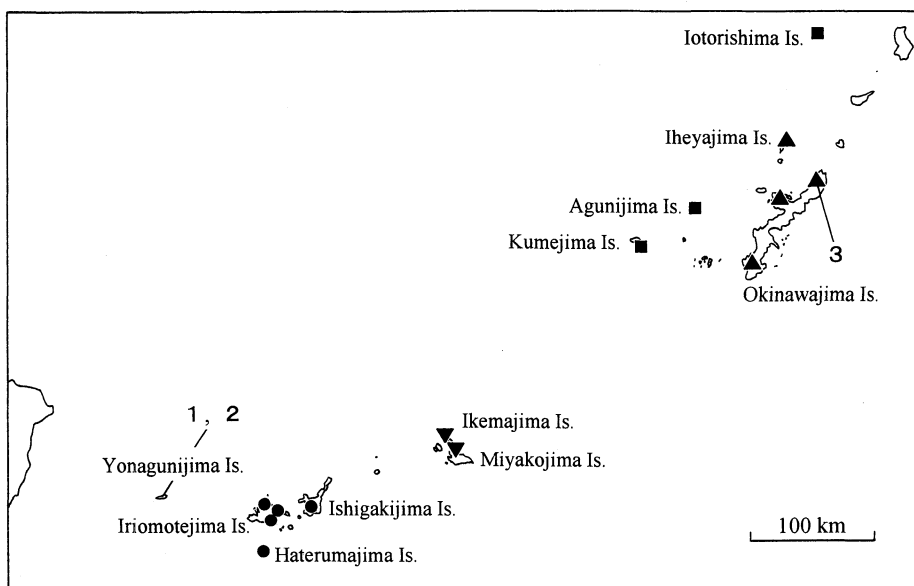


Fig. 26. Distribution of *Zelotes* species in Ryukyu Islands according to the present state of knowledge. 1: *Z. donan* sp. nov., 2: *Z. zephyrus* sp. nov., 3: *Z. flexuosus* sp. nov., ●: *Z. iriomotensis* Kamura, 1994, ▼: *Z. gladius* sp. nov., ▲: *Z. ryukyuensis* sp. nov., ■: *Z. asiaticus* (Bösenberg et Strand, 1906).

Zelotes asiaticus (Bösenberg et Strand, 1906)

(Fig. 26)

Zelotes asiaticus: Hayashi, 1983, p. 10, figs. 1–10; Kamura, 1984, p. 4, figs. 7–13; Platnick & Song, 1986, p. 4, figs. 7–10; Paik, 1986, p. 25, figs. 1–4; Paik, 1992, p. 148, figs. 9–16; Ono, 1994, p. 185.

This species was previously known from Japan (Hokkaido, Honshu, Shikoku, Kyushu), Korea and China. It is recorded from Ryukyu Islands for the first time.

Specimens examined (collected from Ryukyu Islands, Okinawa Pref.). Iotorishima Island: 1 ♂ and 1 ♀, 10.V.1997, T. Sasaki leg. Agunijima Island: 1 ♂ and 2 ♀, eastern part of the island, 13–14. II. 1999, T. & T. Kamura leg. Kumejima Island: 3 ♀, Shimashirizaki, 16–17. II. 1999, T. & T. Kamura leg.

摘 要

琉球諸島(沖縄県)産のワシグモ科ケムリグモ属の7種を報告した。このうち、5種は新種であり、*Zelotes donan* sp. nov. ドナンケムリグモ(新称)、*Z. zephyrus* sp. nov. ニシカゼケムリグモ(新称)、*Z. gladius* sp. nov. ミヤコケムリグモ(新称)、*Z. ryukyuensis* sp. nov. リュウキュウケムリグモ(新称)、*Z. flexuosus* sp. nov. ツヅラケムリグモ(新称)と命名して記載した。他の2種、*Z. iriomotensis* Kamura, 1994 イリオモテケムリグモと

Z. asiaticus (Bösenberg et Strand, 1906) クロチャケムリグモについては、新たな分布記録を報告した。

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